



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,566	07/11/2001	Keita Ito	010698	4812

23850 7590 05/20/2003

ARMSTRONG, WESTERMAN & HATTORI, LLP
1725 K STREET, NW
SUITE 1000
WASHINGTON, DC 20006

EXAMINER

LUGO, CARLOS

ART UNIT	PAPER NUMBER
----------	--------------

3677

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/901,566	ITO ET AL.	
	Examiner	Art Unit	
	Carlos Lugo	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 13 November 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to applicant's amendment filed on April 18, 2003.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claim 1 is rejected** under 35 U.S.C. 103(a) as being unpatentable over DE Pat No 3,841,203 to Obermayer et al (Obermayer) in view of US Pat No 3,202,463 to Fatt.

Obermayer discloses a seal structure comprising a crankcase (1) having a crank chamber. The crankcase is coupled to a lower face of a cylindrical block (4). The crankcase includes first and second case halves (1' and 1'') coupled to each other in a plane perpendicular to the joint surfaces between the crankcase and the cylindrical block.

One of the case halves includes a U shaped groove (5) that extends along a peripheral edge of the chamber.

Enlarged recesses (where 12 is located) are provided only in the first and second case halves and extend laterally from opposite ends of the seal groove.

A bar shaped seal member (6) is mounted in the groove. A gasket (17) is located between the joint surfaces of the block and the crankcase that comes in close contact with the enlarged end portions of the bar seal member.

A T-shaped intersecting joint are among the cylindrical head and the first and second case halves is sealed by the seal member and the gasket

However, Obermayer fails to disclose that at the opposing ends of the bar shaped seal has an enlarged end to be entirely filled on the enlarged recess. Obermayer disclose that a seal ring (10) is attached to the opposite ends of the bar seal member and placed on the enlarged recess.

Fatt teaches a seal structure for an engine body comprising a seal member (28) having enlarged opposite ends (30). Between the enlarged end portion of the seal and the joint surfaces is placed a gasket (32).

Applicant is reminded that a one-piece construction, in place of separate elements fastened together, is a design consideration within the skill of the art. In re Kohno, 391 F.2d 959, 157 USPQ 275 (CCPA 1968); In re Larson, 340 F.2d 965, 144 USPQ 347 (CCPA 1965).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a seal arrangement, as taught by Fatt, into a seal structure as described by Obermayer, in order to create a better sealing between the crankcase and the cylindrical block.

Response to Arguments

4. Applicant's arguments filed on April 18, 2003 have been fully considered but they are not persuasive.

Regarding applicant's arguments that Obermayer, as modified by Fatt, fails to disclose that the enlarged recesses are provided only on the first and second case

halves to be surrounded by the cylinder block and the first and second case halves (Page 4 Lines 1-3), Obermayer illustrates this limitation (Figure 1).

As to applicant's arguments that Obermayer, as modified by Fatt, fails to disclose that the enlarged end portions of the bar shaped seal member are entirely filled in the enlarged recess (Page 4 Lines 4 and 5), Obermayer illustrates that the components that create the end portion (10,11 and 12) are filled entirely in the enlarged recess (Figures 1 and 4). Fatt illustrates that is known in the art to have a bar shaped seal member with end portion as a one-piece construction.

As to applicant's arguments that Obermayer, as modified by Fatt, fails to disclose a gasket interposed between the lower end face of the cylinder block and cooperating end surfaces on the first and second case halves to come into close contact with the upper and end faces of the enlarged end portions of the bar shaped seal member (Page 4 Lines 6-8), Obermayer disclose a gasket (17) that comes into close contact with the upper and end face of the enlarged end portion (10).

As to applicant's arguments that Obermayer, as modified by Fatt, fails to disclose that a T-shaped intersecting joint area among the cylinder block and the first and second case halves is sealed by the seal member (Page 4 Lines 9 and 10), Obermayer illustrates this limitation.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo. The examiner phone number is (703)-305-9747. The fax number for correspondence before a final action is (703)-872-

Art Unit: 3677

9326 and the fax number for correspondence after final action is (703)-872-9327.

The email direction of the examiner is carlos.lugo@uspto.gov. The examiner can normally be reached on Monday to Friday from 9:30am to 6:30pm (EST). If the examiner is not available, please leave a message, including the application number and the examiner will answer the message as soon as possible.

May 13, 2003


ROBERT J. SANDY
PRIMARY EXAMINER